

# 2015 MWEL0 Revision



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TWCA®  
response and  
public  
comment on  
proposed  
revisions

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The Turfgrass Water Conservation Alliance® is a 501c3 nonprofit committed to water conservation and preserving the ecological services provided by turfgrass in the managed environment. Representing 75 members around the world in academia, government, and concerned individuals, TWCA®'s coalition reaches beyond our industry members. Roughly 20% of our membership resides in the Golden State.

While we agree the ongoing drought and changing climatic conditions in the State of California require a shift in thinking, changing the face of the managed landscape, and turning away from the methods, management practices, and plant materials that have always worked in the past we believe this sea-change needs to be based on sound science. TWCA® provides education based on scientific information which contradicts many of the opinions and much of the misinformation about turfgrass. Further, the TWCA® recognizes that water and plants are necessary to sustain life, and strive to protect the environment in which we live. Destruction of the environment by the removal of plant materials, including turfgrass is detrimental to the health and wellbeing of our society.

Turf serves as an important sink for Carbon; nationwide single family detached homes sequester enough carbon to take 44,000 cars off the road each year<sup>1</sup>. That is the same as every person in Coachella CA not driving for a year. Turf filters fine particulate and dust out of the air<sup>2</sup> improving air quality, attenuates noise and glare<sup>3</sup> and cools the air to help mitigate the heat island effect caused by the ever expanding blanket of hard, impervious surfaces covering large swathes of the Golden State. Green spaces in general, and turf in particular, are linked to large scale improvements in the physical and mental health of the population<sup>4</sup> as well as attenuating the health gaps between the richest and poorest citizens of communities<sup>5</sup>.

Decisions made today to remove or limit turf may conserve water in the short term. It may take years or decades, even, for the long term negative consequences to be felt. The removal of plant matter from any environment, managed or natural, should be considered long and with great care. Turfgrass delivers ecological services that benefit all citizens in the State of California; services that make California the livable, beautiful dream that exists in the hearts and minds of all Americans.

Our review of the proposed Model Water Efficiency Landscape Ordinance (MWELo) has revealed the following disturbing trends:

**Reducing affected project areas from 2500 square feet to 500 square feet** - We believe reducing the landscape area that triggers the MWELo ordinance from 2,500 square feet to 500 square feet will increase the enforcement difficulties that the ordinance already

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encounters. Rather than increasing the scope of projects subject to the MWEL0 ordinance we believe the state would be better served by increasing the capacity for enforcement or the existing ordinance.

TWCA® believes revising the activation area of the MWEL0 should be reduced but that such a drastic change will be difficult to enforce, will encourage the employment of unlicensed contractors and will overburden an already strained enforcement system. We suggest reducing the trigger areas for the ordinance from 2500 square feet to 1500 square feet.

**Lack of scientific basis for adjusting water budgeting equations** – Currently set at 0.70, the Evapotranspiration Adjustment Factor (ETAF) is already an arbitrary factor. Revising the ETAF down from 0.7 to 0.50 and 0.4 for residential and nonresidential budgeting respectively has no strong scientific basis. Using unrealistic expectations of irrigation efficiencies and site- wide plant factor averages; this downward revision places an undue burden on the green collar community and continues the wholesale demonization of turfgrass that has been part and parcel of the State of California’s response to drought conditions for the last four years.

Recognizing a reduction in the ETAF is unavoidable; TWCA® suggests a more circumspect approach adjusting the water budget formulas. Using a compromise between the extreme changes suggested in this updated MWEL0 and the current standards; TWCA recommends using an ETAF of 0.60 for residential and 0.50 for commercial applications. Using the basis of a site wide plant factor average of 0.45 for residential applications and 0.425 for commercial installations and Irrigation Efficiencies (IE) of 0.75 and 0.85 for residential and commercial applications respectively results in an increase in calculated efficiencies for landscape areas without putting unrealistic pressures on industry or homeowners. Accordingly, the ETAF derivations would look like this:

$$\text{ETAF}_{\text{residential}} = 0.60 = (0.45/0.75)$$

$$\text{ETAF}_{\text{commercial}} = 0.50 = (0.425/0.85)$$

**Unrealistic expectations for industry** – Placing the onus of improvement solely on the shoulders of industry is not only unfair but also unproductive. Research and manufacturing can only yield gains up to a certain point before the limitations of mechanical efficiency and the forces of the world around us places a cap on the ability of technology to meet the demands of the world around us. Revising Irrigation Efficiencies (IE) up from the current levels of 0.71 to astronomically high levels places unrealistic expectations on irrigation companies. The development of these devices would ultimately price them outside the grasp of the average homeowner or small business owners.





Irrigation companies should be expected to improve the efficiencies of the devices they manufacture, but the increases in efficiency should be realistic expectations based in a desire to conserve precious natural resources. TWCA supports revising the IE for residential installations up from 0.71 to 0.75 and revising commercial installation IE up from 0.7 to 0.85 with commercial areas including all multi-family dwellings beyond a duplex building.

TWCA® also encourages DWR to look beyond hardware solutions and to the heart of the problem... education. A well informed, educated population prepared and willing to use existing technologies to their maximum benefit is capable, we believe, of meeting the current conservation goals.

Increasing enforcement of the existing ordinance as well as implementing a retrofit requirement for all irrigation systems installed prior to 2009 would significantly increase the water savings demonstrated by residential and commercial landscapes.

**Prohibiting turfgrass in any application** – As already addressed the ecological benefits of turfgrass to cities and communities are myriad and multifaceted. Prohibiting turf from use in parkways and medians unnecessarily and unfairly villainizes turfgrass and contributes to the public misconception that turfgrass is, by necessity, a water wasting plant.

An alternative to mandating the removal of turf is to specify water efficient, climate appropriate turf varieties for use in parkways and medians thereby preserving the ecological benefits while effectively reducing water consumption of those areas.

Having identified many disturbing trends in the MWEL0, the TWCA also recognizes the many positive changes proposed for the MWEL0 revision. Many examples of good and essential rulemaking are readily identified. Including:

**DWR approved sources for Plant Factors**- TWCA takes the DWR's recognition of the incredible amount of plant research that has occurred and continues to take place as an indication of their commitment to science driven conservation. Instituting an approval system to separate data supported plant factors from spurious claims combined with enforced water budgeting is an excellent method of ensuring that only the most responsible, well suited plants are installed in managed landscapes.

We encourage DWR to go a step further and have a list of approved plant factor sources prepared for concurrent implementation with adoption of the MWEL0 revision.

DWRs willingness to adhere to the intent of the law rather than the letter, to take responsibility for clerical errors, and to correct them; especially in a political climate





where such actions are unpopular demonstrates the kind of integrity and determination that is necessary for California to not only survive this current drought but to emerge stronger and more resilient to extraordinary climatic events of the future.

**Expanding the definition of Recreation Area** – Recognizing and codifying the importance and diversity of Recreational Areas to the State of California is crucial to the livability of communities across the state for all citizens regardless of ability to engage in “active play”. This recognition is an important step in the acknowledgement that, regardless of ability or inclination, Recreational Areas exist for the benefit of all citizens and represent, arguably, the highest use of water in the State of California, as they contribute, indiscriminately, to the physical and mental wellbeing of all citizens.

**Inclusion of Recreational Areas in Special Landscape Areas** – TWCA applauds the inclusion of Recreational Areas into Special Landscape Areas for the purpose of water budget calculations. Accommodating the special scenarios and management challenges Recreational Areas face, from increased wear, compaction, and including watering schedule challenges demonstrates a real appreciation for the difficulties involved with caring for and maintaining managed areas in the State of California.

Reviewing the proposed MWELO revision, TWCA sees an ambitious document of vision, full of hope and guided by science. In the same document we also see overreaching the limitations of the physical world and a shortsighted willingness to compromise long-term livability in favor of less tenable but more immediately satisfying gains in water efficiency. We look to the state to temper their vision with realism and to seek achievable and sustainable solutions to deliver the water savings the state so desperately needs.

The Turfgrass Water Conservation Alliance® recognizes the incredible strain that has been put on the State of California by this ongoing extraordinary drought. We appreciate the difficulties posed by drafting revisions with such a foreshortened period and thank California Department of Water Resources, especially Senior Environmental Scientist, Julie Saare-Edmonds, who has done an incredible job including the public in the Independent Technical Panel on Demand Management Measures and has been very receptive to feedback from outside parties.

TWCA is committed to water conservation and preserving the ecological benefits of turfgrass in a managed environment. We look forward to working with our members and the State of California to meet the water conservation targets laid out in Executive Order B 29-15. TWCA’s continuing research into turfgrass water efficiencies remains the definitive work in identifying the most water efficient varieties of turfgrass available. We hope the State of California and Department of Water Resources will use this





research as what it is, another essential tool in the efforts to conserve this most valuable natural resource.

Regards,

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